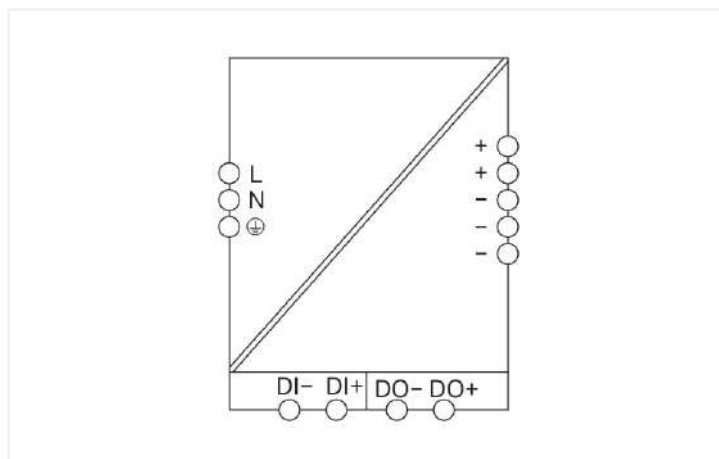


# Data Sheet | Item Number: 2787-2144/000-070

Power supply; Pro 2; 1-phase; 24 VDC output voltage; 5 A output current; TopBoost + PowerBoost; Protection Coating; communication capability



<https://www.wago.com/2787-2144/000-070>



## Features:

- Power supply with TopBoost, PowerBoost and configurable overload behavior
- Configurable digital signal input and output, optical status indication, function keys
- Communication interface for configuration and monitoring
- Optional connection to IO-Link, EtherNet/IP™, Modbus TCP or Modbus RTU
- Suitable for both parallel and series operation
- Natural convection cooling when horizontally mounted
- Pluggable connection technology
- Electrically isolated output voltage (SELV/PELV) per EN 61010-2-201/UL 61010-2-201
- Coated PCBs, resistant to flowing mixed gas per ISA S71.04:1985, G3 Group A
- Marker slot for WAGO marking cards (WMB) and WAGO marking strips

## Technical data

Input	
Phases	1
Nominal input voltage $U_{i, nom}$	1 x AC 100 ... 240 V
Input voltage range	1 x AC 90 ... 264 V; DC 130 ... 240 V
Nominal mains frequency range	50 ... 60 Hz
Input current $I_i$	$\leq 1$ A (240 VAC; nominal load); $\leq 1.8$ A (100 VAC; nominal load)
Inrush current	$\leq 9$ A (after 1 ms)
Power factor correction (PFC)	active
Mains failure hold-up time	$\geq 20$ ms (230 VAC)

Output	
Nominal output voltage $U_{o, nom}$	DC 24 V (SELV)
Output voltage range	DC 24 ... 28 V (adjustable)
Default setting	DC 24 V
Nominal output current $I_{o, nom}$	5 A (24 VDC)
Nominal output power	120 W
Deviation	$\leq 1$ %
Residual ripple	$\leq 70$ mV (peak-to-peak)
Current limitation	$1.1 \times I_{o, nom}$ (typ.)

### Output

Overload behavior	TopBoost/PowerBoost/Time-limited constant current mode (other overload behaviors can be set)
PowerBoost	DC 7.5 A (5 s)
TopBoost	Up to 600 %

### Signaling and communication

Signaling	Optical status indication (DC OK; load; warning and error states) Digital signal input and output (DI/DO)
Communication	USB (Communication Cable 750-923) Ethernet/IP (Communication Module 2789-9023) IO-Link (Communication Module 2789-9080) Modbus RTU (Communication Module 2789-9015) Modbus TCP (Communication Module 2789-9052)

### Efficiency/power losses

Power loss $P_1$	$\leq 1$ W (standby); $\leq 2$ W (no load); $\leq 10$ W (230 VAC; nominal load)
Efficiency (typ.)	93.8 % (230 VAC; 5 A; 25 °C)

### Circuit protection

Internal fuse	T 6.3 A / 250 VAC
Backup fusing (required)	An external DC fuse is required for the DC input voltage.
Backup fusing (recommended)	16 A (for USA/Canada: 15 A)

### Safety and protection

Isolation voltage (pri.-sec., AC)	3510 V
Isolation voltage (pri.-PE, AC)	2200 V
Isolation voltage (sec.-PE)	DC 0.5 kV
Isolation voltage (sec.-signal)	DC 0.5 kV
Protection class	I
Protection type	IP20; per EN 60529
Protective coating	Coated PCBs
Resistance to reverse feed	$\leq$ DC 35 V
Overvoltage category	III ( $\leq$ 2000 m a.s.l.); II ( $>$ 2000 m a.s.l.)
Pollution degree	2
Transient suppression (primary)	Yes
Short-circuit-protected	Yes
Open-circuit-proof	Yes
Parallel operation	Yes
Series operation	Yes
MTBF	$>$ 1,000,000 h (per IEC 61709)

### Connection data

Connection type 1	Input/output/signaling
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 721 Series
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	2.5 ... 1.5 mm <sup>2</sup> / 12 ... 16 AWG
Fine-stranded conductor; with uninsulated ferrule	1.5 ... 0.08 mm <sup>2</sup> / 16 ... 28 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches

### Physical data

Width	35 mm / 1.378 inches
Height	130 mm / 5.118 inches
Depth from upper-edge of DIN-rail	130 mm / 5.118 inches
Note (dimensions)	Height without connector Height with connector: 166 mm

### Mechanical data

Mounting type	DIN-35 rail
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### Material data

Fire load	0 MJ
Weight	650 g

### Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C (Device starts at -40 °C (type-tested))
Ambient temperature (storage)	-40 ... +85 °C
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	See instruction leaflet
Operating altitude (max.)	5000 m

### Standards and specifications

Conformity marking	CE
Standards/specifications	EN 61010-1 EN 61010-2-201 EN 61204-3 UL 61010-1 UL 61010-2-201 DNV UL HazLoc ISA S71.04:1985; G3 Group A SEMI F47

### Commercial data

ETIM 8.0	EC002540
ETIM 7.0	EC002540
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	CN
GTIN	4066966125931
Customs tariff number	85044083900

### Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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### Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc.	UL 61010-2-201	E255817

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications



Approval	Standard	Certificate Name
DNV DNV Germany GmbH	DNV-CG-0339, Aug. 2021	TAA00002ZF

Approvals for hazardous areas



Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	A-E198726

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 2787-2144/000-070 <a href="#">↓</a>

Documentation

Manual			
Product Manual Power supply; Pro 2; 1-phase; 24 VDC output voltage; 5 A output current	V 1.2.2 18.02.2022	pdf 7997.98 KB	<a href="#">↓</a>

Instruction Leaflet			
WAGO Pro 2 Power Supplies	V 1.1.0 26.04.2021	pdf 4445.43 KB	<a href="#">↓</a>

CAD/CAE-Data

CAD data
2D/3D Models 2787-2144/000-070 <a href="#">↓</a>

CAE data
EPLAN Data Portal 2787-2144/000-070 <a href="#">↓</a>

Runtime Software

Firmware			
2787-2144, Stromversorgung; Pro 2	V 010513 13.10.2021	zip 1087.50 KB	

## 1 Compatible Products

### 1.1 Optional Accessories

#### 1.1.1 Communication

##### 1.1.1.1 Communication module



**Item No.: 2789-9023**

Communication module; EtherNet/IP; communication capability



**Item No.: 2789-9080**

Communication module; IO-Link; communication capability



**Item No.: 2789-9015**

Communication module; Modbus RTU; RJ45; communication capability



**Item No.: 2789-9052**

Communication module; Modbus TCP; communication capability

#### 1.1.2 Marking

##### 1.1.2.1 Marker carrier



**Item No.: 2789-1233**

Marker carrier; for WMB or marking strips; Length: 33 mm